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CLAIMS

- 1. A process for forming an underlying film, comprising: irradiating the surface of an insulating film disposed on an electronic device substrate with plasma based on a process gas comprising at least an oxygen atom-containing gas, to thereby form an underlying film at the interface between the insulating film and the electronic device substrate.
- 2. A process for forming an underlying film according to claim 1, wherein the insulating film is a film comprising a high-k (high-dielectric constant) material.
- 3. A process for forming an underlying film according to claim 1 or 2, wherein the plasma is plasma containing oxygen radicals.
- 4. A process for forming an underlying film according to any one of claims 1 to 3, wherein the underlying film is an oxide film.
- 5. A process for forming an underlying film according to any one of claims 1 to 4, wherein the plasma is plasma based on a plane antenna member (RLSA).
- 6. An electronic device material, comprising: an electronic device substrate, an underlying film disposed on the substrate, and an insulating film disposed on the underlying film,

wherein the underlying film is a film which has been formed by supplying plasma from the insulating layer side.

7. The electronic device material according to claim
6, wherein the insulating film is a film comprising a high-k (high-dielectric constant) material.